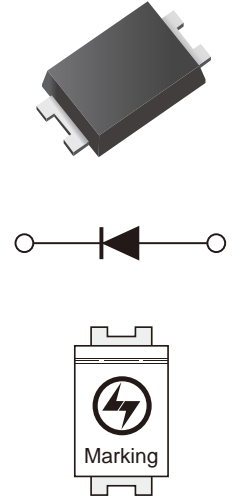


Surface Mount Schottky Barrier Rectifier

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case: PDFN3620
- Terminal: Leads solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Ordering Information

| Part Number | Shipping | Reel |
|---------------------|--------------------|-----------|
| LT22P3 THRU LT220P3 | 12000PCS Tape&Reel | 13 inches |

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter | Symbol | LT22P3 | LT24P3 | LT26P3 | LT28P3 | LT210P3 | LT212P3 | LT215P3 | LT220P3 | Unit |
|--|-----------------|-------------|--------|--------|----------|---------|---------|---------|---------|---------------|
| | Marking | P22 | P24 | P26 | P28 | P210 | P212 | P215 | P220 | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V |
| Maximum RMS voltage | V_{RMS} | 14 | 28 | 42 | 56 | 70 | 84 | 105 | 140 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V |
| Maximum instantaneous forward voltage at 2A | V_F | 0.5 | 0.5 | 0.7 | 0.85 | 0.85 | 0.85 | 0.95 | 0.95 | V |
| Maximum average forward rectified current | $I_{(AV)}$ | 2 | | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 60 | | | | | | | | A |
| Maximum DC reverse current at rated DC reverse voltage $T_A=25^{\circ}C$ $T_A=100^{\circ}C$ | I_R | 0.15 5 | | | 0.3 3 | | | | mA | |
| Typical Junction Capacitance (Note1) | C_J | 220 | | | 80 | | | | pF | |
| Typical thermal resistance (Note2) | $R_{\theta JA}$ | 80 | | | | | | | | $^{\circ}C/W$ |
| Operating junction temperature range | T_J | -55 to +125 | | | | | | | | $^{\circ}C$ |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | | $^{\circ}C$ |

Note: (1) Measured at 1MHz and applied reverse voltage of 4.0V D.C.

(2) P.C.B. mounted with 2.0" x 2.0" (5.0cm x 5.0cm) copper pad areas.



Characteristics Curve

FIG.1 FORWARD CURRENT DERATING CURVE

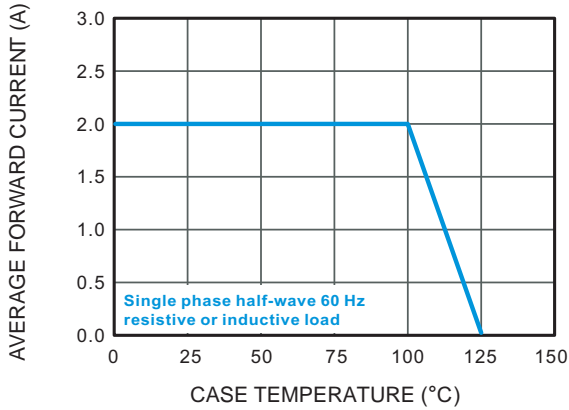


FIG.2 TYPICAL REVERSE CHARACTERISTICS

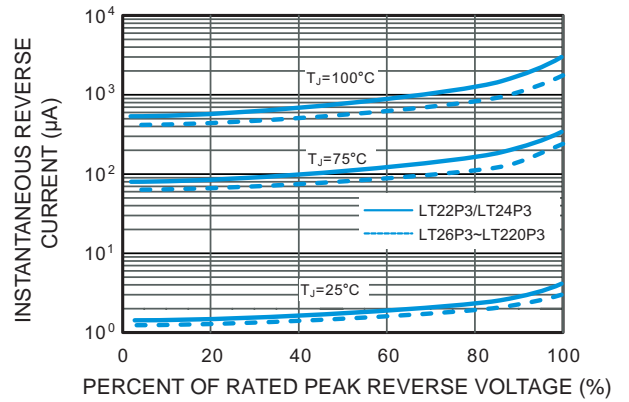


FIG.3 TYPICAL FORWARD CHARACTERISTICS

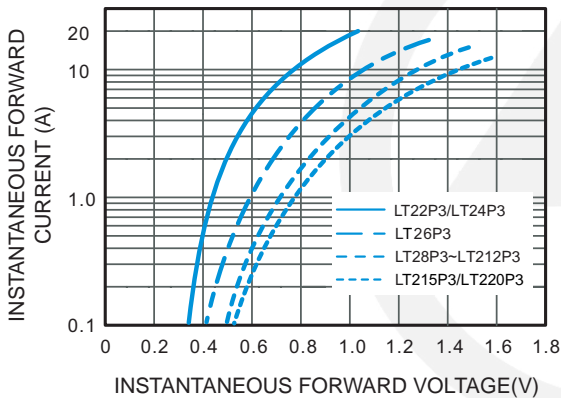


FIG.4 TYPICAL JUNCTION CAPACITANCE

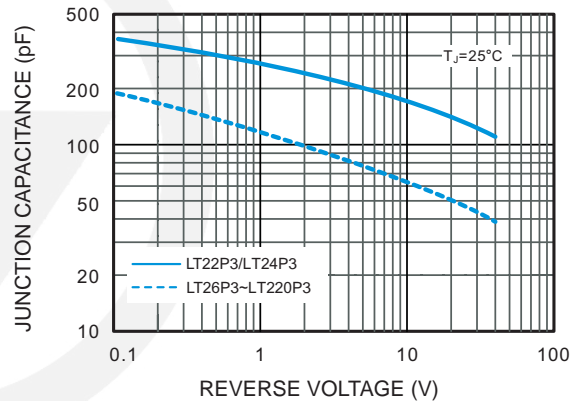


FIG.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

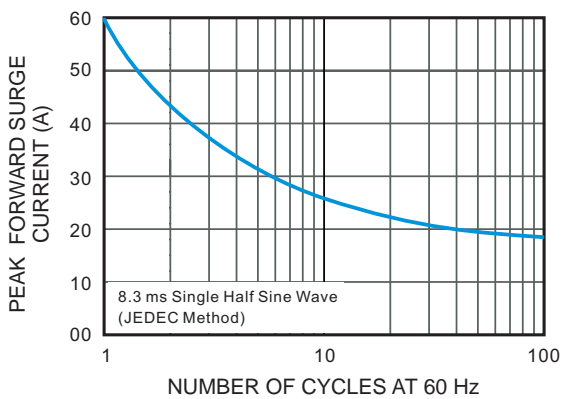
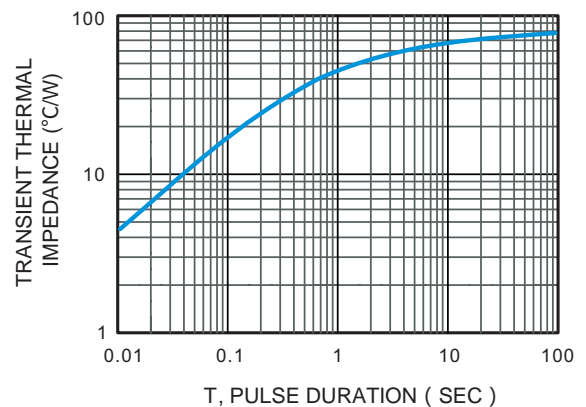
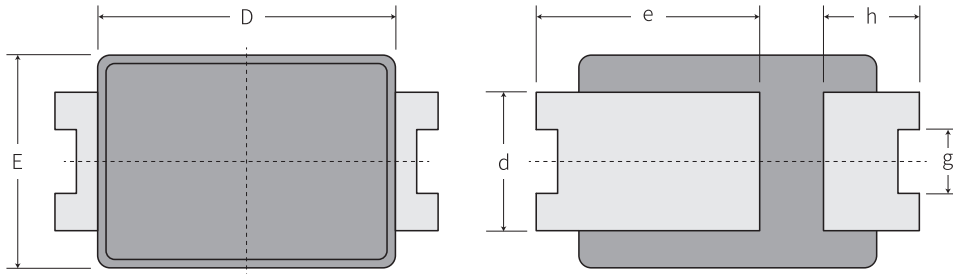


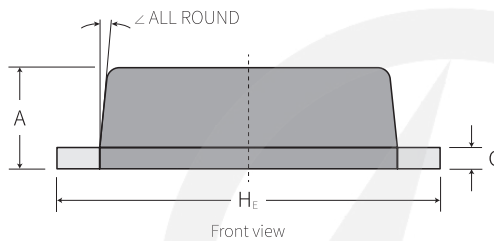
FIG.6 TYPICAL TRANSIENT THERMAL IMPEDANCE



Package Outline
PDFN3620
Unit : mm


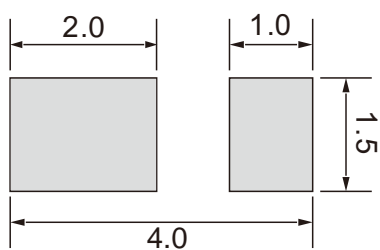
Top View

Bottom View



Front view

| UNIT | | A | C | D | E | H _E | d | e | g | h | ∠ |
|------|-----|------|------|------|------|----------------|------|------|------|------|----|
| mm | max | 1.15 | 0.30 | 3.00 | 2.20 | 3.80 | 1.50 | 2.30 | 0.80 | 1.10 | 6° |
| | min | 0.75 | 0.10 | 2.60 | 1.80 | 3.40 | 1.10 | 1.70 | 0.40 | 0.70 | |

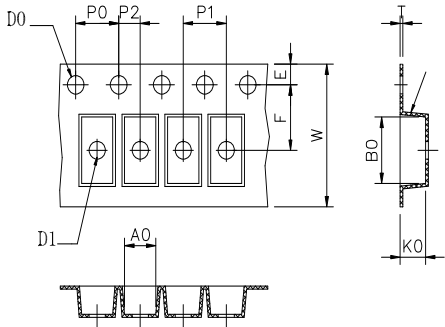
Suggested Pad Layout
PDFN3620
Unit : mm


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm
3. The pad layout is for reference purpose only.

Carrier Tape Dimensions

Unit : mm

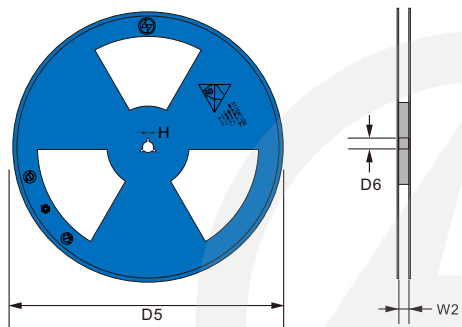


| Symbol | Spec | Symbol | Spec |
|--------|-----------|--------|-----------|
| W | 8.00±0.10 | P1 | 4.00±0.10 |
| E | 1.75±0.10 | P2 | 2.00±0.05 |
| F | 3.50±0.05 | T | 0.22±0.02 |
| D0 | 1.55±0.05 | A0 | 2.30±0.10 |
| D1 | 1.50±0.10 | B0 | 3.90±0.10 |
| P0 | 4.00±0.10 | K0 | 1.15±0.05 |

Reel Dimensions

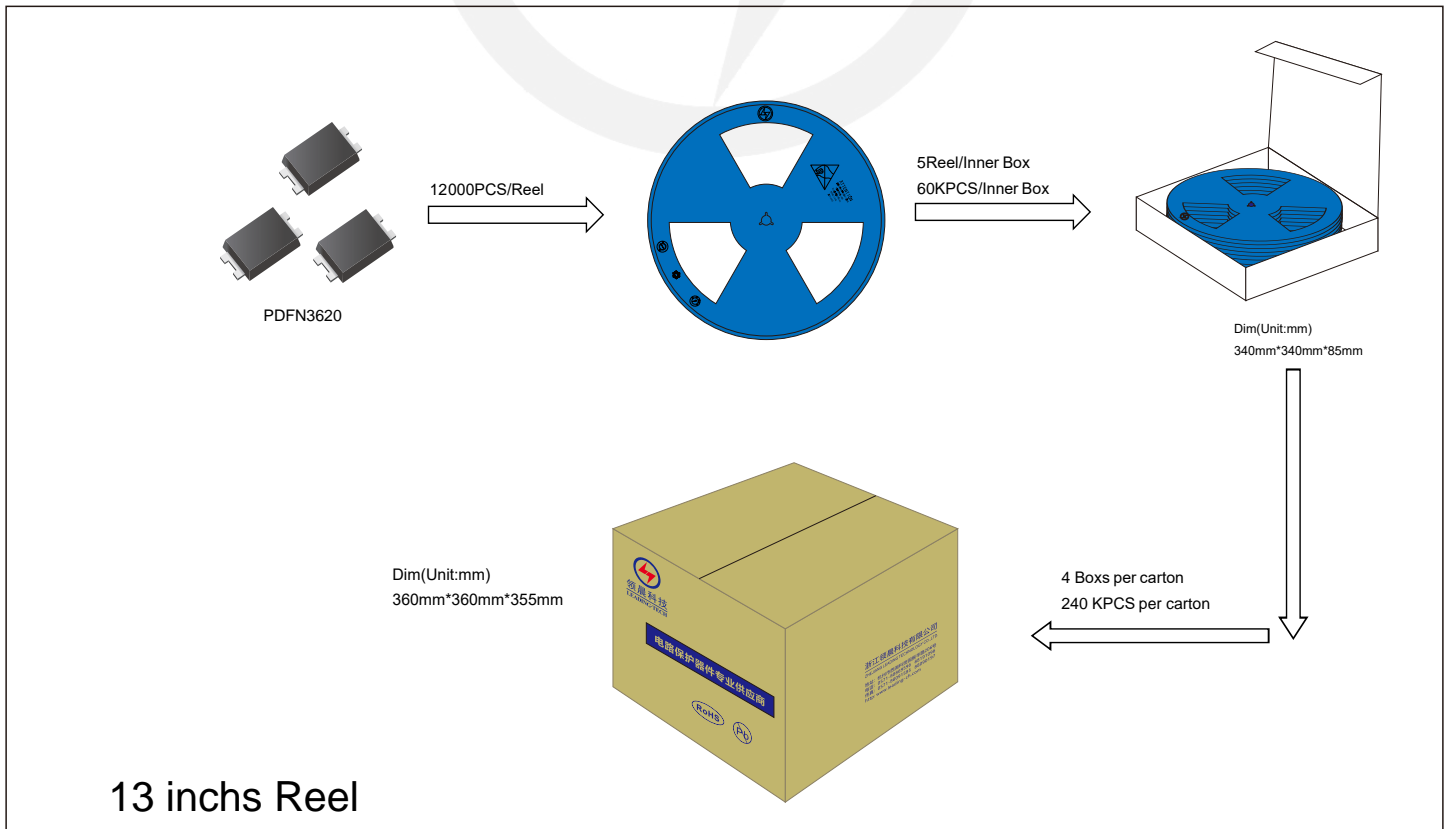
Unit : mm

13" Reel



| | |
|--------------------|------------|
| D5 | Φ330.0±2.0 |
| D6 | Φ13.5±0.5 |
| H | 2.5±1.0 |
| W2 | 12±2.0 |
| Quantity: 12000PCS | |

Packaging





Recommended Soldering Conditions



Recommended Conditions

| Profile Feature | Pb-Free Assembly |
|--|------------------|
| Average ramp-up rate (T _L to T _P) | 3°C/second max. |
| Preheat | |
| -Temperature Min (T _{S min}) | 150°C |
| -Temperature Max (T _{S max}) | 200°C |
| -Time (min to max) (t _s) | 60-180 seconds |
| T _{S max} to T _L | |
| -Ramp-up Rate | 3°C/second max. |
| Time maintained above: | |
| -Temperature (T _L) | 217°C |
| -Time (t _L) | 60-150 seconds |
| Peak Temperature (T _P) | 260°C |
| Time within 5°C of actual Peak Temperature (t _p) | 20-40 seconds |
| Ramp-down Rate | 6°C/second max. |
| Time 25°C to Peak Temperature | 8 minutes max. |

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Version Update Information

| Series NO. | Enactment/Revision Date | Effective Date | Version | Revision content | Revision Reason | Revision Person | Note |
|------------|-------------------------|----------------|---------|---|-----------------|-----------------|------|
| 01 | 2024.3.1 | 2024.3.1 | 1.0 | New File | / | Ding | |
| 02 | 2025.4.18 | 2025.4.18 | 1.1 | 1.Revise Marking 2.Package Outline e(min)=1.7 | / | Ding | |
| 03 | 2025.5.14 | 2025.5.14 | 1.2 | V _F Condition Corrected to 2A | / | Ding | |